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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,278	09/14/2006	Hans-Peter Merkel	1034193-000032	4033

21839 7590 05/20/2009
BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER	
MOORE, IAN N	

ART UNIT	PAPER NUMBER
2416	

NOTIFICATION DATE	DELIVERY MODE
05/20/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/552,278	MERKEL ET AL.	
	Examiner	Art Unit	
	IAN N. MOORE	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 October 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/4/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

2. The disclosure is objected to because of the following informalities: it does not follow the preferred guideline provided by 37 CFR 1.77(b).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to provide the basic for "**a memory**" in the withdrawable unit (claim 1, lines 6)

Drawings

4. The drawings are objected to because there is a lack of descriptive text legends for FIG. 1 [see 37 CFR 1.83, CFR 1.84 [5(O)], MPEP § 608.02(e)]. (*e.g. "20" should be labeled as "**Ethernet Switch** 20", "11" should be labeled as "withdrawable unit 11", etc.*).

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "**a memory**" in the withdrawable unit (claim 1, lines 6) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

6. The information disclosure statement filed 10/4/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(1) Claim 1 recites, "...the withdrawable units being installed in switchgear cabinets, and in insert compartments there, **communicating via a field bus, being uniquely identified by an appliance address**, and **basic information which is required for appliance**..." in liens 2-6.

It is unclear whether "cabinets" or "withdrawable units" is communicating via filed bus. It is unclear whether "cabinets" or "withdrawable units" are being uniquely identified by an appliance address. It is unclear whether "cabinets" or "withdrawable units" has basic information which is required for appliance.

Claims 2-9 and 11-20 are also rejected since they are based on rejected claims set forth above.

Claim Objections

9. Claims 2,4,6,8,9,10,13,17 and 20 are objected to because of the following informalities:

Claim 2 recites **"and/or"** in line 6. It is suggested to clarify the use of words instead of "/".

Claim 20 is objected for the same reasons claim 2 above.

Claim 6 recites the clause with the optional language "**can be**" in line 3. In order to present the claim in a better form and to describe a positive or require steps/function to be performing (i.e. using the claim language that does not suggest or make optionally but required steps to be performed), applicant is suggested to revise the claim language such that the steps/functions, which follows "can be", to be performed are required (not optional).

Claim 8, 10, 20 are objected for the same reasons claim 6 above.

Claim 4 recites "its **intended application**" in line 4, and **claim 10** recites "them" in lines 9. For clarity, it is suggested to avoid the use of pronoun "its" or "them".

Claim 17 is objected for the same reasons claim 4 and 10 above.

Claim 6 recites **"a withdrawable unit"** in line 3. For consistency and clarification with "one withdrawable unit" recited in claim 1, line 7, it is suggested to change "**a withdrawable unit**" in line 3, to "**the withdrawable unit**".

Claim 9, 13 are objected for the same reasons claim 6 above.

Claim 10 recites **"leastthe"** in line 10. For clarity, it is suggested correct the typographical error.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 10-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 10 recites, "a **method** of installation of withdrawable units…wherein

the communication via the field bus….

the appliance address of the withdrawable units…"

Claim 10 provides for the use of "***a method for installing of withdrawable units...***" in line 1, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 10 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e.,

results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claims 11-20 are rejected since it depends on the rejected claim 10 set forth above.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Swales (WO 02/05107).

Regarding Claim 21, Swales discloses a withdrawable unit (see FIG. 1, replaceable/removable I/O devices; page 24, abstract) for installation in a switchgear assembly (see FIG. 1, installed in switching cabinets/hubs and insert/located into I/O port; see page 24-25; abstract),

wherein the field bus communication of the withdrawable unit (see FIG. 1, communicating between replaceable/removable I/O device and a connection/bus) is based on Ethernet TCP/IP technology (see FIG. 1, using Ethernet TCP/IP technology at the Ethernet Switch 20; pages 23-24), and

at least one Ethernet TCP/IP interface is contained in the withdrawable unit (see FIG. 1, replaceable/removable I/O device has a TCP/IP interface/port; Page 23-24).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US007002907B1) in view of Swales (WO 02/05107).

Regarding Claim 1, Chen discloses a switchgear assembly system (see FIG. 2, Switch 200; see col. 4, line 65 to col. 5, line 5) having

a switchgear assembly (see FIG. 2, switch Chassis assembly 202) using withdrawable unit technology with the withdrawable units (see FIG. 2, using insert-able/withdraw-able cards (e.g. trunk cards 214, tributary cards 208, cross-connect cards 210/212), also known as card equipments; see col. 4, line 30-40) being installed in switchgear cabinets in insert compartments there, (see FIG. 2, being installed in the slots/cabinets which contain insert-able area/compartments; see col. 4, line 65 to col. 5, line 19), and

communicating via a field bus (see FIG. 2, communication via a interconnection backplane/bus; see col. 5, line 1-6), being uniquely identified by an appliance address (see FIG. 2, insert-able/withdraw-able cards is uniquely identified by an address T_0-T_n,t_0-t_n; see col. 5, line 6-15), and basic information which is required for appliance operation being contained in a memory in the withdrawable unit (see FIG. 2, when the new card equipment is inserted, the card transmits basic information (e.g. card type, port density, transmission requirements) which is

required for card equipment operation contains the memory/database/storage in the card; note that card equipments are trunks cards (OC-192, OC-768), and tributary cards (DS1, ATM, FR, DS3) must contain a memory/database/storage in order to process data and communicates; see col. 5, line 5-20; see col. 6, line 10-40);

wherein the communication between at least one withdrawable unit and the field bus is implemented using bus/backplane communication technology (see FIG. 2, the communication between the cards and bus/backplane communication; see col. 5, line 1-20), and

the at least one withdrawable unit is a bus/backplane interface (see FIG. 2, at lease one insert-able/withdraw-able cards 214,208,210/212 is a bus/backplane interface; see col. 5, line 1-20).

Although wherein the communication between at least one withdrawable unit and the field bus is implemented using bus/backplane communication technology and the at least one withdrawable unit is a bus/backplane interface as set froth above,

Chen does not explicitly disclose using "Ethernet TCP/IP technology" and "a TCP/IP interface".

However, Swales teaches a switchgear assembly system having a switchgear assembly (see FIG. 1, local Plant Area having switching setup/assembly) using withdrawable unit technology with the withdrawable units (see FIG. 1, using replaceable/removable I/O devices; page 24, abstract) being installed in switchgear cabinets and in insert compartments there (see FIG. 1, being installed in switching cabinets/hubs and insert/located into I/O port; see page 24-25; abstract), communicating via a field bus (see FIG. 1, communication using a connection/bus between managed Ethernet switch 20 and cabinets/hubs; page 24), being uniquely identified by

an appliance address (see FIG. 1, each replacement I/O devices has MAC and IP address; see page 24), and basic information which is required for appliance operation being contained in the withdrawable unit (see page 1, communicating port assignment for operation contain in the I/O device; see page 24),

wherein the communication between at least one withdrawable unit and the field bus (see FIG. 1, communicating between replaceable/removable I/O device and a connection/bus) is implemented using Ethernet TCP/IP technology (see FIG. 1, using Ethernet TCP/IP technology at the Ethernet Switch 20; pages 23-24), and the at least one withdrawable unit is a TCP/IP interface (see FIG. 1, I/O device has a TCP/IP interface/port; Page 23-24).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "Ethernet TCP/IP technology" and "a TCP/IP interface" as taught by Swales in the system of Chen, so that it would provide TCP/IP technology to determine prompt identification of network devices that have failed in service; see Swales page 15.

Regarding Claim 2, Chen discloses wherein at least one switch (see FIG. 1, cross-connect card (CCC)) is provided in each switchgear cabinet (See FIG. 1, in the switch Chassis assembles) for communication with the at least one withdrawable unit (see FIG. 1, for communicating with insert-able/withdraw-able cards; see col. 5, line 55- to col. 6, line 50; see col. 11, line 30 to col. 12, line 2), and

an application server which manages at least the address allocation (see FIG. 1, 2,4, the address/indemnification of the cards equipment are provisioned/allocated and managed by

network management system (see FIG. 10, 11); see col. 5, line 55- to col. 6, line 50; see col. 11, line 30 to col. 12, line 25) and

a database (see FIG. 10, 11, database/memory 1015, 1053 inside the network management system) in which at least appliance data for the at least one withdrawable unit is at least stored and/or managed are provided outside the switchgear cabinet (see FIG. 3A, stores and managed the card address information data is located in the network management system which is outside of the switch; see col. 6, line 1-40; see col. 10, line 55 to col. 11, line 40).

Chen does not explicitly disclose "Ethernet switch", "TCP/IP address".

However, Swales discloses wherein at least one Ethernet switch (see FIG. 1, Ethernet switch 20) is provided in each switchgear cabinet (see FIG. 1, in the local Plant Area/cabinet) for communication with the at least one withdrawable unit (see FIG. 1, for communication with removable/replaceable devices; see pages 20-27), and

an application server (see FIG. 1, 2, monitor agent 10) which manages at least the TCP/IP address allocation (see FIG. 1,2, manage/control MAC and IP address assignment/allocation; pages 20-27) and

a database (see FIG. 1, database of the monitored agent; see page 25) in which at least appliance data for the at least one withdrawable unit is at least stored and/or managed (see FIG. 1-2, each port assignments or MAC address for each removable/replaceable unit is stored in the memory) are provided outside the switchgear cabinet (see FIG. 1, 2, are outside of local switching plan area/cabinet; page 25).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "Ethernet switch", "TCP/IP address" as taught by Swales in

the system of Chen, so that it would provide TCP/IP technology to determine prompt identification of network devices that have failed in service; see Swales page 15.

Regarding Claim 3, Chen discloses wherein each insert compartment is allocated a unique port (see FIG. 2, each contain insert-able area/compartments in the switch have unique port identification T_0-T_n,t_0-t_n; see col. 4, line 65 to col. 5, line 19). Swales also disclose allocation of unique ports of the Ethernet switch (see FIG. 1-2, each port assignments/allocation of ports of the Ethernet switch 20; pages 20-27). Thus, the combined system of Chen and Swales discloses the claimed invention.

Regarding Claim 4, Chen discloses wherein the database (see FIG. 10, 11, database/memory 1015, 1053 inside the network management system) contains, at least for each withdrawable unit at least information relating to its installation location and to its intended application (see FIG. 1, 2, the network management database maintains the identification of each insert-able/withdraw-able cards location T_0-T_n,t_0-t_n and intended application (i.e. tributary, trunk, cross-connect) of each card (e.g. trunk cards 214, tributary cards 208, cross-connect cards 210/212); see col. 5, line 6-15; see col. 6, line 5-42). Swales also discloses wherein the database contains, at least for each withdrawable unit at least information relating to its installation location and to its intended application (see page 24-28). Thus, the combined system of Chen and Swales discloses the claimed invention.

Regarding Claim 5, Chen discloses wherein the database contains (see FIG. 10, 11, database/memory 1015, 1053 inside the network management system), at least for each withdrawable unit, information relating to the port to which the withdrawable unit is allocated (see FIG. 10, 11, contains each insert-able/withdraw-able cards in information to the ports

location T_0-T_n,t_0-t_n see col. 5, line 6-15; see col. 6, line 5-42). Swales also discloses wherein the database contains (see FIG. 1, database of the monitored agent; see page 25), at least for each withdrawable unit, information relating to the Ethernet switch (see FIG. 1-2, Ethernet switch 20 addresses) and to the port of the Ethernet switch to which the withdraw-able unit is allocated (see FIG. 1-2, ports assignments of the Ethernet switch where each removable/replaceable device is located; page 24-25).

Regarding Claim 6, Chen discloses wherein the appliance data (see FIG. 3A, 308,330l the basic information (e.g. card type, port density, transmission requirements) can be interchanged between the database (see FIG. 3A, automatically updated from database; see FIG. 10, memory 1015, FIG. 11, memory 1053 of the network management system) and a withdrawable unit (see FIG. 1, insert-able/withdraw-able cards) via the application server (see FIG. 1, 3A, via the network management system); see col. 6, line 1-40; see col. 10, line 55 to col. 11, line 40). Swales also discloses wherein the appliance data can be interchanged between the database and a withdrawable unit via the application server (see FIG. 1, the device data is communicated from the database of the agent 10 to the removal device via the agent 10; page 25-27).

Regarding Claim 7, Chen discloses wherein the application server contains appliance identification software for identification of an appliance (see FIG. 10, 11, network management system contain computer software/program for identification of each insert-able/withdraw-able cards in the switch) which is allocated to one port (see FIG. 11, allocated/assigned to one port/slot in a switch; see col. 10, line 45-35; see col. 5, line 5-26). Swales also discloses wherein the application server contains appliance identification software for identification of an appliance

(see FIG. 1, monitor agent 10 contains management software/program to identify/address the removable device) which is allocated to one port of an Ethernet switch (see FIG. 1, assigned/allocated to one port/slot of an Ethernet switch; pages 24-28).

Regarding Claim 8, Chen discloses wherein the appliance identification software can identify the appliance type of an appliance (see FIG. 10, 11, network management system contain computer software/program for type of each insert-able/withdraw-able cards in the switch, e.g. tributary, trunk, Cross connect cards; or active or fail cards) which is allocated to one port (see FIG. 11, allocated/assigned to one port/slot in a switch; see col. 10, line 45-35; see col. 5, line 5-26). Swales also discloses wherein the appliance identification software can identify the appliance type of an appliance (see FIG. 1, monitor agent 10 contains management software/program to identify/address type the removable device, i.e. new, old, fail cards) which is allocated to one port of an Ethernet switch (see FIG. 1, assigned/allocated to one port/slot of an Ethernet switch; pages 24-28).

Regarding Claim 9, Chen discloses wherein the appliance identification software appliance controls the interchange of appliance data (see FIG. 10, 11, network management system contain computer software/program controls/manages the exchange/communication of data) between the database (see FIG. 3A, automatically updated from database; see FIG. 10, memory 1015, FIG. 11, memory 1053 of the network management system) and a withdrawable unit via the application server (see FIG. 1, 3A, via the network management system); see col. 6, line 1-40; see col. 10, line 55 to col. 11, line 40). Swales also discloses wherein the appliance identification software controls the interchange of appliance data (see FIG. 1, monitor agent 10 contains management software/program to controls the downloading/communication of data for

the removable device) between the database and a withdrawable unit via the application server (see FIG. 1, from the database of the agent 10 to the removal device via the agent 10; page 25-27).

Regarding Claim 10, Chen discloses a method of installation of withdrawable units in switchgear assemblies (see FIG. 2, switch Chassis assembles 202), in which case the withdrawable units (see FIG. 2, insert-able/withdraw-able cards (e.g. trunk cards 214, tributary cards 208, cross-connect cards 210/212), also known as card equipments; see col. 4, line 30-40) are installed in insert compartments in a switchgear cabinet (see FIG. 2, being installed in the slots/cabinets which contain insert-able area/compartments; see col. 4, line 65 to col. 5, line 19), communicate via a field bus (see FIG. 2, communication via a interconnection backplane/bus; see col. 5, line 1-6), can be identified uniquely by an appliance address (see FIG. 2, insert-able/withdraw-able cards is uniquely identified by an address T_0-T_n,t_0-t_n ; see col. 5, line 6-15) and contain basic information which is required for appliance operation in a memory (see FIG. 2, when the new card equipment is inserted, the card transmits basic information (e.g. card type, port density, transmission requirements) which is required for card equipment operation contains the memory/database/storage in the card; note that card equipments are trunks cards (OC-192, OC-768), and tributary cards (DS1, ATM, FR, DS3) must contain a memory/database/storage in order to process data and communicates; see col. 5, line 5-20; see col. 6, line 10-40),

wherein the communication via the field bus is based on bus/backplane communication technology (see FIG. 2, the communication between the cards and bus/backplane communication; see col. 5, line 1-20), the appliance addresses of the withdrawable units are automatically allocated to them and managed by an application server (see FIG. 1, 2,4, the

address/indemnification of the cards equipment are automatically provisioned/allocated by network management system (see FIG. 10, 11)) which is integrated in the network (see FIG. 1, 10, 11, which is in the network; see col. 5, line 55- to col. 6, line 50; see col. 11, line 30 to col. 12, line 25), and

at least the basic information for each withdrawable unit is downloaded automatically to the withdrawable unit (see FIG. 3A, 308,330l the basic information (e.g. card type, port density, transmission requirements) for the card equipment are automatically provisioned by network management system) from a database (see FIG. 3A, from database; see FIG. 10, memory 1015, FIG. 11, memory 1053 of the network management system; see col. 6, line 1-40; see col. 10, line 55 to col. 11, line 40).

Although the communication via the field bus is based on bus/backplane communication technology, and an application server which is integrated in the network as set froth above,

Chen does not explicitly disclose using "Ethernet TCP/IP technology" and "Ethernet network".

However, Swales teaches a method of installation of withdrawable units (see FIG. 1, using replaceable/removable I/O devices; page 24, abstract) in switchgear assemblies (see FIG. 1, local Plant Area having switching setup/assembly), in which case the withdrawable units are installed in insert compartments in a switchgear cabinet (see FIG. 1, being installed in switching cabinets/hubs and insert/located into I/O port; see page 24-25; abstract), communicate via a field bus (see FIG. 1, communication using a connection/bus between managed Ethernet switch 20 and cabinets/hubs; page 24), can be identified uniquely by an appliance address (see FIG. 1, each replacement I/O devices has MAC address; see page 24) and contain basic information which is

required for appliance operation (see page 1, communicating port assignment or MAC address for operation contain in the I/O device; see page 24),

wherein the communication via the field bus (see FIG. 1, communicating between replaceable/removable I/O device and a connection/bus) is based on Ethernet TCP/IP technology (see FIG. 1, using Ethernet TCP/IP technology at the Ethernet Switch 20; pages 23-24), the appliance addresses of the withdrawable units are automatically allocated to them and managed by an application server (see FIG. 1,2 MAC and IP address of removable/replaceable devices are automatically downloaded/installed to the devices and control/managed by monitored agent 10) which is integrated in the Ethernet network (FIG. 1-2, which is in the Ethernet network via Ethernet switch 20; see pages 20-27), and

at least the basic information for each withdrawable unit is downloaded automatically to the withdrawable unit (see FIG. 1-2, each port assignments or MAC address for each removable/replaceable device is installed/downloaded to the device) from a database (see FIG. 1, database of the monitored agent; see page 25).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "Ethernet TCP/IP technology" and "Ethernet network" as taught by Swales in the system of Chen, so that it would it would provide TCP/IP technology to determine prompt identification of network devices that have failed in service; see Swales page 15.

Regarding Claim 11, Chen discloses wherein the appliance addresses are automatically allocated to the withdrawable units (see FIG. 1, 2,4, the address/indemnification of the cards equipment are automatically transmitted/downloaded by network management system (see FIG.

10, 11) to the insert-able/withdraw-able cards) during or after installation in the switchgear cabinet in the switchgear assembly (see FIG. 1, while/after installing the slots/cabinets in the switch Chassis assembles 202; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to col. 7, line 25), and/or

the basic information is automatically downloaded in the withdrawable units (see FIG. 3A, 308,330l the basic information (e.g. card type, port density, transmission requirements) for the card equipment are automatically transmitted/downloaded by network management system to insert-able/withdraw-able) during or after the installation of the withdrawable units in the switchgear cabinet during or after installation in the switchgear cabinet in the switchgear assembly (see FIG. 1, while/after installing the slots/cabinets in the switch Chassis assembles 202; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to col. 7, line 25).

Swales discloses wherein the appliance addresses are automatically allocated to the withdrawable units during or after installation in the switchgear cabinet in the switchgear assembly (see FIG. 1, the address of the device is automatically communicated/downloaded from the agent 10 to the removal device during/after the installation of switching cabinets/hubs; see page 24-25; abstract), and/or

the basic information is automatically downloaded in the withdrawable units during or after the installation of the withdrawable units in the switchgear cabinet (see FIG. 1-2, each port assignments or MAC address of each removable/replaceable device is installed/downloaded to the device during/after the installation of switching cabinets/hubs; see page 24-25; abstract).

Regarding Claim 12, Chen discloses wherein at least the basic information for each withdrawable unit is downloaded from the database via the application server (see FIG. 3A,

308,330l the basic information (e.g. card type, port density, transmission requirements are transmitted/downloaded via network management system to insert-able/withdraw-able card; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to col. 7, line 25). Swales discloses wherein at least the basic information for each withdrawable unit is downloaded from the database via the application server (see FIG. 1-2, each port assignments or MAC address of each removable/replaceable device is installed/downloaded to the device by the network monitor agent 10; see page 24-25; abstract).

Regarding Claim 13, Chen discloses wherein at least the basic information and further application and appliance information for at least one withdrawable unit are downloaded automatically from the database to the withdrawable unit (see FIG. 3A, 308,330, card type, port density, transmission requirements, address and software/application-information are transmitted/downloaded from the memory/database via network management system to insert-able/withdraw-able card; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to col. 7, line 25). Swale discloses wherein at least the basic information and further application and appliance information for at least one withdrawable unit are downloaded automatically from the database to the withdrawable unit (see FIG. 1-2, port assignments, IP address, MAC address and program/application data are installed/downloaded to the removable device by database of the network monitor agent 10 to the removable device; see page 24-25; abstract).

Regarding Claim 14, Chen discloses wherein the withdrawable units in the switchgear cabinet communicate with a switch which is allocated to that switchgear cabinet (see FIG. 1, insert-able/withdraw-able cards communicate with cross-connect card (CCC) allocated/assigned to the switch Chassis assembles; see col. 5, line 55- to col. 6, line 50; see col. 11, line 30 to col.

12, line 2). Swales discloses wherein the withdrawable units in the switchgear cabinet communicate via TCP/IP with an Ethernet switch which is allocated to that switchgear cabinet (see FIG. 1, removable/replaceable devices in the local plant area/cabinet communicate via TCP/IP Ethernet with Ethernet Switch 20 allocated/assigned to that local plant area/cabinet; see pages 20-27).

Regarding Claim 15, Chen discloses wherein each insert compartment and/or the installation location of each withdrawable unit in the switchgear cabinet is allocated a unique port (see FIG. 2, each contain insert-able area/compartments and/or installable area/location for each card in the switch have unique port identification T_0-T_n,t_0-t_n; see col. 4, line 65 to col. 5, line 19). Swales discloses wherein the installation location of each withdrawable unit in the switchgear cabinet is allocated a unique port of the Ethernet switch (see FIG. 1-2, installable location/port of reach removal device in the local plant area/cabinet is assigned/allocated to a port of the Ethernet switch 20; pages 20-27).

Regarding Claim 16, Chen discloses wherein appliance data for all the switchgear assembly appliances is managed in the database (see FIG. 3A, 308,330, card type, port density, transmission requirements, address and software/application-information data for switch chassis is managed/controlled by database/memory embedded in the network management system;; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to col. 7, line 25). Swales discloses wherein appliance data for all the switchgear assembly appliances is managed in the database (see FIG. 1, data for the removable devices is managed in the memory/database of the monitor agent 10; see pages 24-27).

Regarding Claim 17, Chen discloses wherein information about the use of the withdrawable unit and the basic information associated with it are stored together with the information about its installation location in the database for each withdrawable unit (see FIG. 1, 3A, the used/operated/active card address/identification and associated base information (e.g. card type, port density, etc.) are stored in the install location information/identification in the chassis for each insert-able/removable card; see col. 5, line 1-20; see col. 6, line 10-40; see col. 10, line 56 to col. 11, line 63; see col. 12, line 9-17). Swales discloses wherein information about the use of the withdrawable unit and the basic information associated with it are stored together with the information about its installation location in the database for each withdrawable unit (see FIG. 1, 2, data for the active/used of the removable device and the basic information (e.g. port assignments, IP address, MAC address) stored with port/location in the database/memory for each removable device; pages 24-28).

Regarding Claim 18, Chen discloses wherein the appliance type of a withdrawable unit is automatically identified by the application server (see FIG. 10, 11, network management system automatically identifies/determines the type of each insert-able/withdraw-able cards in the switch, e.g. tributary, trunk, Cross connect cards; or active or fail cards; see col. 10, line 45-35; see col. 5, line 5-26) during its installation at an installation location in the switchgear cabinet (see FIG. 1, while installing in the dedicated slots/cabinets in the switch Chassis assembles 202; see col. 4, line 65 to col. 5, line 19, 30-35; see col. 5, line 55 to col. 7, line 25). Swales discloses wherein the appliance type of a withdrawable unit is automatically identified by the application server (see FIG. 1, monitor agent 10 automatically determines/identifies type the removable device, i.e. new, old, fail cards, by the monitor agent 10) during its installation at an installation

location in the switchgear cabinet (see FIG. 1, while/during installing at dedicated port/address in the local plant area/cabinet; pages 24-29).

Regarding Claim 19, Chen discloses wherein the appliance data in the database is automatically checked for compatibility with the appliance type identified by the application server (see FIG. 1, 3A-B, insert-able/removable card information data stored in the memory is checked/compared with card type identified/determined by the network management to detect mismatch; see col. 6, line 5-40). Swales discloses wherein the appliance data in the database is automatically checked for compatibility with the appliance type identified by the application server (see FIG. 1, the device data stored in the database of the monitor agent is automatically checked/compared with the type determined/detected by the network monitor agent 10; pages 24-29).

16. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen and Swales as applied to claims above, and further in view of Maloy (US 6,557,049).

Regarding Claim 20, Chen discloses wherein each method step can also be monitored as set forth above.

Neither Chen nor Swales explicitly discloses "carried out manually if required".

However, Maloy discloses wherein each method step can also be monitored and/or carried out manually if required (abstract, FIG. 1, monitoring and processing manually when required).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "carried out manually if required" as taught by Maloy, in the

combined system of Chen and Swales, so that it would provide a mechanism for entering input for optional manual configuration of an operational feature of the enclosure module; see Maloy col. 4, line 45-59.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to IAN N. MOORE whose telephone number is (571)272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick W. Ferris can be reached on 571-272-3123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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